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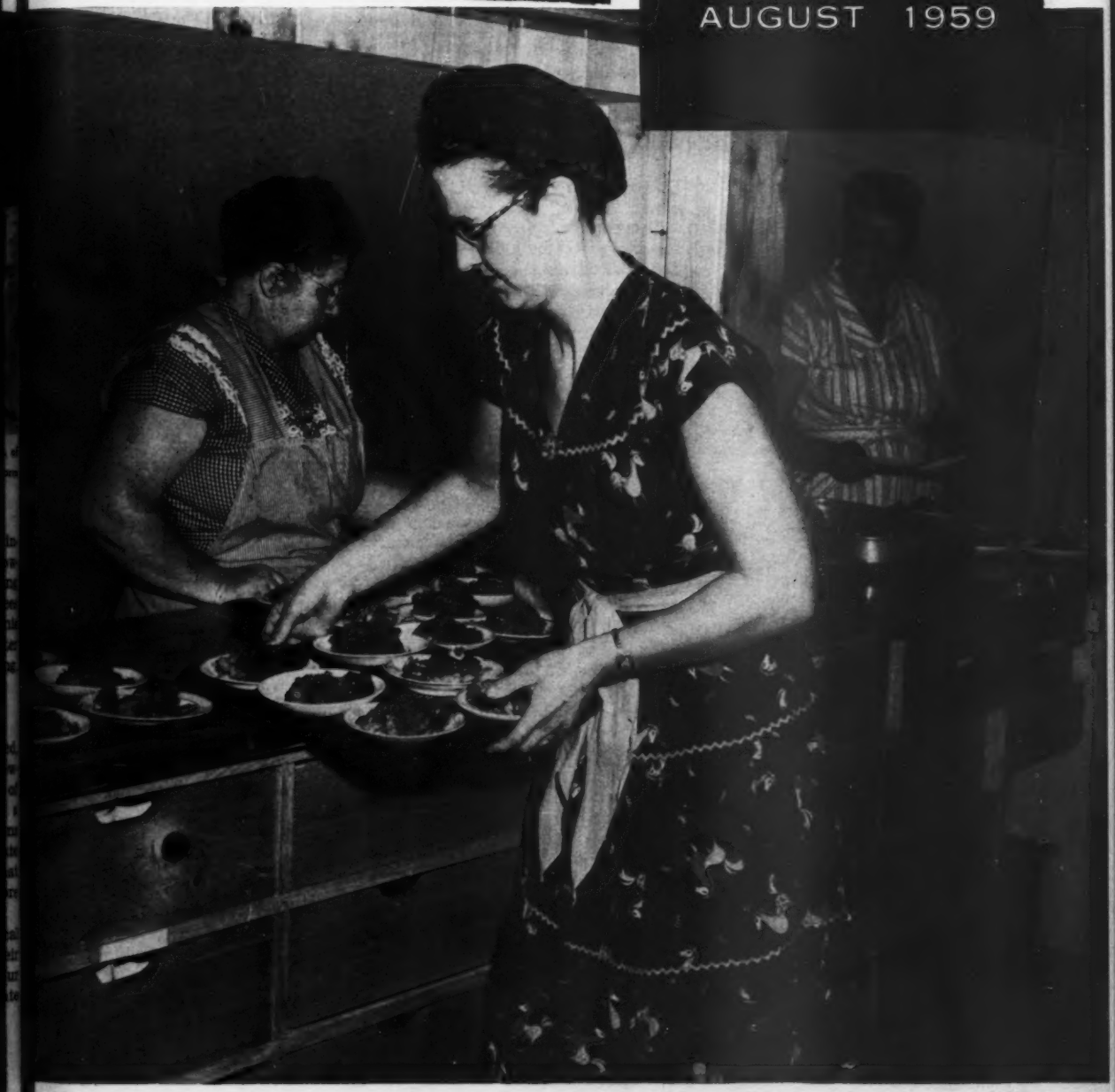

Cooking for a Crowd
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EXTENSION SERVICE Review

Official monthly publication of Cooperative Extension Service: U. S. Department of Agriculture and State Land-Grant Colleges and Universities cooperating.

The Extension Service Review is for Extension educators—in County, State and Federal Extension agencies—who work directly or indirectly to help people learn how to use the newest findings in agriculture and home economics research to bring about a more abundant life for themselves and their community.

The Review offers the Extension worker, in his role of educational leader, professional guideposts, new routes, and tools for speedier, more successful endeavor. Through this exchange of methods, tried and found successful by Extension agents, the Review serves as a source of ideas and useful information on how to reach people and thus help them utilize more fully their own resources, to farm more efficiently, and to make the home and community a better place to live.

Vol. 30 **August 1959** **No.**

Prepared in
Division of Information Programs
Federal Extension Service, USDA
Washington 25, D.C.

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EAR TO THE GROUND

December is traditionally a time for inventory—taking a backward look at activities during the year. This stock-taking gives a starting point for making plans for the year ahead.

Now it's becoming increasingly popular to take a mid-year look at progress (or lack of it), make any necessary changes, and get ready for the "stretch run."

Perhaps major league baseball set the precedent for this. The 3-day break in the schedule for the All-Star Game in July gives players a brief vacation. And it gives owners and managers a chance to check on any weak spots in the team, perhaps bring up a minor league player to fill a gap, and get ready for the drive to the pennant.

Reading the sports pages, you might think such a mid-season inventory is useless. Sports writers love to tell how many years the team in first place on July 4 went on to win the pennant. But the writers also remind us about the "miracle" Boston Braves of 1914—the team that was in last place on July 4 and won the pennant going away. This, of course, offers a glimmer of hope to every baseball fan, player, manager, and owner.

We in Extension can also profit from a mid-season inventory. And we can all take heart from the 1914 Braves. Probably none of us is in "last place" but we're not all leading the league either, when it comes to accomplishing what we set out to do last January.

This might be a good time to get out that 1959 plan of work that was filed some months ago, take a look at it, and see what changes have to be made to reach our objectives for the year. We can see if our major goals in January are still receiving the attention they deserve—see if we need to revise our program "lineup" for the stretch run.

Maybe the February through June issues of the Review will help. They deal with areas of the Scope Report and may offer suggestions for program content or methods that will help you reach your goals.

We're resuming the Scope series in September, with Family Living as the feature subject. It will show how various State and county extension workers are helping families to develop their full potential—as family units and as citizens.—EHR

The Extension Service Review is published monthly by direction of the Secretary of Agriculture as administrative information required for the proper transaction of the public business. The printing of this publication has been approved by the Bureau of the Budget (June 26, 1958).

The Review is issued free by law to workers engaged in extension activities. Others may obtain copies from the Superintendent of Documents, Government Printing Office, Washington 25, D. C., at 15 cents per copy or by subscription at $1.50 a year, domestic, and $2.25, foreign.

Making a THREE-POINT LANDING

by O. A. BURBANK, *Dutchess County Agricultural Agent, New York*

A FEW years ago, our extension association president, a flying farmer, and I came into the airport during strong gusty winds. We made a three-point landing, but only one point at a time. Both agent and pilot agreed that a three-point landing is much smoother and safer (and we might add, more valid) when the three points of contact are synchronized.

Down to Earth

With program evaluation, many of us are still "up in the air." Our goal is to come in for a smooth landing. A three-point approach may make such evaluation more valid. This was the technique I used in making a study of our Farm and Home Management program in Dutchess County.

One approach to the evaluation was by program participants, a second by committees that helped to plan and administer the program, while the third analysis was by the agricultural agent. Surveys were used to obtain opinions of participants and committees.

Analysis of these surveys and writing of the conclusions were accomplished while on sabbatic leave. For this, I was enrolled in the Agricultural Economics Department at the University of Florida. Prof. John R. Greenman was helpful in supervising my tabulations, interpretations, and conclusions. This points to one basic fact. Agents may be able to evaluate their own programs, but they can do a better job with the aid of trained workers.

A 10-page survey was given to all 34 families which had been in the program either 2 or 3 years. It was administered by an agricultural agent not acquainted with the farmers.

The first of the 4-part questionnaire asked for farm and family information. Changes in Management, a second part, asked the participant for factual information and judgments on production practices, management, and records. The influence of the program in stimulating changes or desire to change was reflected in this section.

Part three gave participants an opportunity to demonstrate decision-making, indicate whom they would consult for advice, and whether or not the program had exerted any influence.

Part four consisted of seven questions on program evaluation. These included reasons for participation, important things learned or done, helpfulness rating, changes suggested, comparison of farm and home visits with group meetings, and contrasts between this and regular programs.

Two committees which were in a position to pass judgment on the program participated in this survey. Sixteen were members of the steering committee, which helped plan and carry out the program. There were eight members of the agricultural department executive committee, who were responsible for administering all agricultural programs.

The 30 survey questions gave committee members a chance to reflect their knowledge of the program, its scope, cost, and purpose. They appraised the area approach method, duration of participation by members, cooperation of agents from different departments, the effect of this on other extension programs, and gave opinions on the direction for the future.

Other Methods

In addition to surveys of participants and committees, there are other ways and means available for an agent's evaluation. I found it desirable to make detailed statements of the program and its launching and development in Dutchess County. These were compared with 14 other New York counties which started at the same time.

In reporting on progress with business agreements, I found case studies most helpful. This method was also used with fringe participants.

I also made an appraisal of the extension methods used in the program. This was an analysis of farm visits type of work with families and uses made of record summaries. I analyzed 20 circular letters used in 2 years from two viewpoints. These were the Flesch Readability Formula and a circular letter evaluation.

(See Three-Point Landing Page 174)

BUILD IN EVALUATION

by E. J. BROWN, *National Agricultural Extension Center for Advanced Study, University of Wisconsin*

EVALUATION is an accepted term in the vocabulary of the Extension worker. But doing something about it often has not gone beyond the talking stage.

Any educational activity has three major phases; planning, execution, and evaluation. But relatively little emphasis and time have been given to evaluating extension activities.

There are several reasons why little time is given to evaluation: lack of confidence in ability to do evaluation, pressures of routine activities which require little or no planning and evaluation, inability to see evaluation as a part of the educational process, negative attitudes toward recordkeeping, and relatively little training in evaluation.

This article illustrates how evaluation can be built into any educational activity. Results of a meeting were appraised, not only to measure the impact of the meeting but to obtain facts which would help in deciding what kind of activities should follow.

This evaluation was conducted at a session of Iowa's 1958 annual extension meeting. The program included four general sessions on objectives of extension education, extension's clientele, evaluation, and improving ability as salesmen of ideas.

Study Findings

In the third session, I gave a talk on Evaluation in Extension. Just before the talk, benchmark data were obtained by having the staff members fill out a short questionnaire.

At the end of the talk, a questionnaire was again filled out by the staff members. Similar questions were included in both questionnaires.

Objectives of the talk were: (1) to have extension staff develop a favorable attitude toward using evaluation in their daily activities, (2) to have the staff learn the fundamental steps in doing an evaluation study, and (3) to motivate extension workers to carry out an evaluation study in the next year. Questions were designed to measure whether these objectives were accomplished.

Question Approach

To determine attitude change, the staff were asked, "How useful do you feel evaluation is to you in your work?" Although 48 percent said, "very much" before the talk, 59 percent felt that way afterwards. Almost all of the staff were somewhat favorable toward evaluation before the talk; 96 percent felt that evaluation was "very much" or "quite a bit" useful.

"Evaluation is a good thing, but my working day is already too crowded. How do you feel about this statement?" At the beginning of the talk, 54 percent disagreed partially or completely; after the talk 60 percent disagreed. Staff members who showed the greatest change were the 22 percent who did not know how they felt before the talk. Only 11 percent had not made up their minds at the end.

Another question was, "To what extent do you feel you have the know-how to do an evaluation study?" At the beginning, 27 percent said they had complete or almost complete knowledge of how to do evaluation. At the end of the talk, 51 percent said they had a similar level of knowledge.

According to staff members, the talk was effective in increasing knowledge about evaluation. One explanation is that the staff realized evaluation is not a difficult task. An objective knowledge test before and after would have been a more precise measurement of knowledge change.

To determine the extent to which staff members plan to carry out evaluation as a result of the talk, we asked, "Have you carried out an evaluation study in the past year?" Forty-nine percent said they had and 51 percent that they had not. Later they were asked, "How do you feel about carrying out an evaluation study in the next year?" Forty-five percent said they definitely plan to, 38 percent that they probably will, and 15 percent were not sure. Only 2 percent said probably not.

Interpreting Results

In general, this study shows that some staff members developed more favorable attitudes toward evaluation and increased their knowledge of evaluation. Perhaps a few were able to evaluate themselves more objectively at the end and shifted to lower knowledge and less favorable categories. Many did not show any change. A small group probably showed a negative change.

This appraisal also points out that the audience consisted of several different groups. Before the meeting, a large percentage already had attained the objectives sought.

It is also obvious that little change can be expected as a result of one meeting. Unless a followup training program takes place, there will be little increase in extension evaluation.

An in-service training program in evaluation will need to be aimed at different groups. Some staff members are sold on evaluation and have built it into their work. These people need help in perfecting their skills. Another group may need help with more information about evaluation and practice in developing elementary appraisal techniques. For a third group of extension workers, the training program would have to develop more favorable attitudes toward evaluation before progress can be made in developing evaluation skills.

A study such as this can be made a part of any extension activity. Measurement before and after a program gives some indication of changes brought about and gives facts with which to make decisions about the next step in an extension program.

Cooking for a Crowd

by MRS. EMILIE T. HALL, *Home Economics Editor, New York*

CHURCH suppers used to mean at least two days of hard labor for the ladies of the Methodist Church at Smyrna, N. Y. The kitchen was far too small and poorly laid-out. There was almost no equipment—an iron sink, a wood stove, and one cupboard. The dining room, which doubled for Sunday School classes, was woefully inadequate for either job.

Deciding that something had to be done, members of the congregation called on Mrs. Eloise Baldwin, then the county home demonstration agent. Mrs. Baldwin turned to specialists from the College of Home Economics at Cornell University to help to plan remodeling of the kitchen and dining room.

Then the members of the congregation rolled up their sleeves and went to work. Before they got through, they had help not only on remodeling but on other equally important factors in community meal service—equipping the kitchen, meal planning, and purchasing, preparing and serving foods in large quantities.

Nowadays, instead of three women doing most of the work for suppers at the Smyrna church, volunteers compete to help serve meals from the big new kitchen. And their church suppers are a real success.

Over an 8-year period this pattern has been repeated in varying degrees in 424 church, Grange, and other community kitchens in New York State. In Ontario County alone, 23 community groups have put in new kitchens or remodeled old ones with extension's help.

In community kitchens, trouble centers largely around seven points —inadequate work space; lack of well-planned, usable storage; poorly arranged dishwashing and cleanup areas; improper lighting; lack of adequate safety precautions; inadequate facilities for safe holding of foods; and poor selection of equipment for quantity food preparation and service.

Food-wise, people want the works —everything from sanitary food handling to figuring costs and profits.

Answers Provided

Much of the information is already available or being developed by research and practice in the College cafeteria, which serves as a laboratory for quantity food preparation and service. Building specifications, plans for equipment which can be made, and advice on such problems as sewage disposal are supplied by the housing and design department and agricultural engineers.

From this body of information five Extension bulletins have been issued —Purchasing Food for Fifty, Hot Breads for your Community Meals, Desserts for your Community Meals, Cookies for your Community Meals, and Camp Food Service Management.

Also supplementing the program is a book, Quantity Recipes. It contains more than 600 recipes for 50 servings each, plus detailed instructions on kitchen practices and cooking techniques when large numbers of people are being served.

Last year Prof. Marie Knickrehm, one of the institution management department's two specialists, traveled more than 10,000 miles to conduct community meal service training classes in 30 communities. She found time to help produce a teaching film, too.

Most popular of the community meal service lessons is a series of three day-long sessions in which result demonstrations are combined with learn-by-doing.

The first day includes a discussion of various phases of quantity food preparation, use of suitable equipment, overall organization for serving meals in quantity, plus the details of committees, menu planning, and cost accounts. At this session, women start thinking about a menu they will serve to invited guests at a demonstration luncheon on the third day.

Plans and Followup

Nutrition enters into the planning indirectly. With meals being prepared by a group of women working together, it is more economical, more practical, and makes for more nutritious meals if a planned menu is followed. Obviously, in serving a single meal, the best you can shoot for is a third of individual nutrition requirements for that day.

At the second meeting, the class spends considerable time on safe and sanitary food handling. This includes ways to avoid contamination of food during preparation and discussion of bacterial growth in foods which are not kept at the proper temperatures. Safety for workers also is covered.

Before the second class ends, the women consider the intricacies of purchasing food in quantity and the importance of using standardized recipes. They plan a menu to the last detail, make up market orders,

(See Community Cooking, page 174)

Reaching New Groups via TV

by ANNA C. THOMPSON, *Area Home Demonstration Agent, Kentucky*

Does your extension program reach all communities and groups in your county? Or are some communities generally uninterested, some groups often left out, such as mothers with young children, rural nonfarm residents, retired people?

Four years ago we started what we call the Rural-Industrial Project, to develop methods of reaching hard-to-reach groups. Two communities in western Kentucky were selected for the project. Both had recently been subjected to nearby industrialization, and in neither had the agents been able to reach a large percentage of the people.

In the two communities we tried many proven extension methods—Farm and Home Development, community meetings, 4-H clubs, demonstrations, homemakers programs, special-interest groups, newsletters, farm and home visits. But we had only moderate success. In the fall of 1958, we decided to try a special approach.

New Approach

As area agent for 11 western counties of Kentucky, I was in charge of a weekly half-hour television program. We decided to use this program as a basis for informal discussion.

Briefly, our plan was to organize small viewing groups among the women of the two communities. By furnishing materials and keeping in touch with the groups, we hoped to lead them into discussion of the television programs. This was a means of arousing their interest and pointing up their learning of new practices or ideas. The program was directed toward the two communities but actually, as the plan developed, it spilled over into other counties.

We planned a series of four programs using the USDA chart, Food for Fitness, as the basis of our teaching. Knowing that these first programs must make a strong appeal and be readily recognized as worthwhile, we took special care in planning. In these programs, I was assisted by Sunshine Colley, home demonstration agent of Marshall County, who presented nutritional information. My part of the program was on preparation and use of food.

After planning the programs, we called on women in the communities to suggest that they meet together in groups of four or five to view and discuss the programs.

We proposed that each group could meet at one home to view the program and then discuss it, or they could view the program at their own homes and meet later in the afternoon for discussion. Both plans were followed. We urged that the groups be limited to close neighbors so that it would be easy to get together.

Women who agreed to have groups meet in their homes were designated as "group leaders." To each leader we explained our plan in detail, gave a copy of the Food for Fitness leaflet, and explained methods of leading a discussion group.

Just before each program we sent the group leaders a letter with suggested questions for discussion and a return card for reporting the persons present and any questions the group might have raised.

What about the results? Did we succeed in reaching people we had not been able to reach before? Mothers with young children? Rural nonfarm residents? Retired families?

Let's take a look at the composition of the viewing groups. Of the 331 women of the two communities who were reported to have watched and discussed the programs, less than half had been members of organized homemakers clubs. Of the 39 group leaders, 16 were young mothers with children of preschool age and 12 were women over 60 years old.

Reception was good and interest in the programs was high judging by responses on the report cards and other comments to the producers. Agents involved, both in the two pilot communities and in others throughout the area, felt that the plan was successful in reaching women not reached by other means and in building interest in other aspects of the extension program. Among the viewing groups, we have noticed increased interest in organized clubs.

After the series on foods, we used this viewing and discussion plan with a series on business affairs and another on kitchens. The plan, of course, requires extra time and work. It takes extra time in setting up groups, briefing leaders, preparing and sending discussion questions, receiving reports and answering questions.

Considering the results, this extra time is among the most valuable hours of work the home agent spends.

Mothers brought small children to the viewing and discussion group meetings in Kentucky

Teaching the WHY of Soils

by K. ROBERT KERN, *Assistant Editor, Iowa*

MANY 1959 model Iowa farmers have the same eagerness to gain knowledge as their grandfathers had at the turn of the century.

Pioneer extension worker P. G. Holden told of an adult short course class in 1902 which showed up in the pre-dawn darkness with lanterns, breakfast, and a deep interest in corn. This year, nearly 200 farmers spent 3 days studying principles of soils and plant growth.

This was an experimental program of the extension agronomy staff. From the response, the agronomists see the possibility of a new definition of their role. It may be a little early to be sure of that, but let's look at what happened.

Extension agronomists were a little shaken by what came out of program projection. They saw most local planning being done on the basis of practices — more conventional programs in which the same persons come to the same kind of meeting to hear the same agronomist talk about essentially the same things.

Another Iowa activity—Challenge to Iowa—added an influence. In this program some 50,000 Iowa people showed that they could study reality and were willing to look straight into the face of even unpleasant possibilities.

Seedling of Idea

When the agronomists put together their professional understanding of agronomic problems, the kind of view that "Challenge" gave of the total Iowa environment, and conviction that people were willing to try unconventional methods to attack problems, the die was cast. Agronomists began to talk about the need for farmers to know more about principles and relationships than about farming recipes.

Three county extension directors heard them talking and told their councils about the idea. Then they said, "All right, let's see if you know what you're talking about."

The idea itself was clear-cut—teach the principles of soils and plant growth to farmers so they can approach management with better understanding. But the doing was not clear-cut. Innovators work without precedents.

What subject matter is needed? Who are the interested farmers? How much time should it take? Is this an open program, or is it a special audience? How many farmers can take part profitably? At what level should the subject matter be pitched? Are there ways of further extending it?

This is only a sampling of the questions that had to be answered by the agronomy staff. And they involved others. Information workers helped plan visual aids. The training specialist was involved. District extension supervisors were brought in at the start.

And here's what they came up with:

Program. The program included three 1-day sessions, one each week for three successive weeks in February. The first day was mainly soils—formation, erosion control, and soil chemistry. The second day concentrated on plant morphology and plant physiology. The final day brought the discussion and correlation of the information through work problems, with the participants developing soil and crop management plans for an actual farm in their own county. And there was a quiz on each day's subject matter.

Participants. One county extension director, after consultation with others, invited certain individuals; in another county, a limited enrollment period followed publicity; in another, members of the county extension council recruited participants from their respective townships.

Participants paid a nominal registration fee for the program. This was partly to build an idea of "value" in their minds. The registration fee was used for refreshments and helped cover some of the cost of a specially prepared "textbook" for each participant.

Results. Formal evaluation of the program is still in process. Part of this will be analysis of the quizzes. These were college-level quizzes—for example, "The process of photosynthesis makes use of _____, _____ and _____ in manufacturing food." The characteristics of a plant are determined by _____."

Other formal evaluation will include collection of information from a sample of farmers who took part and from county extension workers.

Perhaps one of the best informal indications of success is that already six other counties have asked for a

(See Soils Teaching, page 168)

Extension Agronomist Frank W. Schaller illustrates one phase of soil principles.

In Puerto Rico

RURAL DEVELOPMENT MOVES AHEAD

by MARIO L. CONDE-THILLET, *Press Editor, Puerto Rico*

EXTENSION economists in Puerto Rico believe that Rural Development, now underway in a pilot area of the Island, will give the solution to many problems of poorly developed areas. So far, the economists say, this program has prompted group action and is creating a strong sense of responsibility toward community problems.

Rural Development is a long range program aimed at improving the standard of living of underdeveloped rural areas. It recognizes the need to develop all resources of these areas to provide better living conditions for the people.

Three Point Program

This program in Puerto Rico has three main characteristics. First, it involves the cooperation and unified efforts of many groups and agencies, both private and governmental. Second, it promotes group action to solve the problems that contribute to poor social and economic conditions. And third, it uses all available means, methods, and facilities in helping people to help themselves.

The pilot area includes five extension counties in the central mountainous part of the Island—Naranjito, Corozal, Orocovis, Comerio, and Barranquitas. It covers an area of 40,000 acres with more than 3,000 families. Two county agricultural agents and one home demonstration agent are in charge of the program.

The people of the pilot area have been alerted to the need for group action. Several community projects have been completed and others are either under construction or in the planning stage. These include four rural reservoirs, eight rural electrification projects, a health center to serve about 1,200 families, a breakfast center for 85 children, and construction of roads and trails in five communities.

One rural reservoir built through community action and some governmental help is serving about 40 families and a school with 250 students. Community action has also brought improved school grounds and improvement programs for pastures, coffee farming, and soil conservation.

Community improvement campaigns receive strong support from the people in the area. They aim at increasing the number of fruit and forest trees on lands not suited for other crops, improving public health, increasing the use of safety measures on the farm and in the home, and controlling diseases in tobacco and plantain plantations.

Several rural development committees and promotion committees are cooperating with extension agents in carrying out the pilot program. County agents, extension specialists, and technicians from many agricultural agencies cooperate in training the people in the skills and abilities they need to solve individual and community problems.

Training meetings have been conducted on Social Security, home industries, home nursing, clothing, furniture improvement, farm and home bookkeeping, soil and water conservation, poultry production, control of diseases and parasites in dairy and beef cattle, and production, classification and marketing of minor crops.

Soil Conservation Service workers give guidance in preparation of water and soil conservation programs for individual farms. They help farmers to plan, establish, and maintain sound water and soil conservation practices. SCS also participates in training meetings in which related topics are discussed.

The great interest that this program has aroused in Puerto Rico and abroad indicates that something worthwhile is being accomplished. Community projects in this area have been visited by more than 12 Point Four program students from Europe, Asia, Africa, and Latin American countries, as well as by 150 Puerto Rican legislators.

SOILS TEACHING

(Continued from page 167)

similar short course in their next year's program.

A problem. When the agronomists turned to the principles they had agreed to teach, they made a discovery. In Agronomist E. R. Duncan's words: "Our basic knowledge of how plants grow and take up nutrients, the climatic probabilities, the soil-water relationships, and basic soil characteristics is surprisingly incomplete. To get the kind of answers we need may require 10, 15, or even 25 years of research effort."

This short course program developed as an experimental action in line with a widely expressed (but little explored) need—the need to teach why. It was fitted to county program interests. Its logic was that of the diffusion process, with an implicit assumption that people have a communication process that will spread understanding of principles as they spread knowledge of practices.

Such a program, the extension agronomists believe, has valuable potentialities as part of an on-going program on soil management and crop production and as a kick-off for a stronger educational effort in agronomy.

New Use for Old Tool

by **JOHN BAYLOR**, *Extension Agronomist, Pennsylvania*

Special educational exhibit of grasses and legumes of varying qualities gives spectators a chance to do practice judging.

A NEW approach using an old tool was recently initiated in Pennsylvania to promote the production of high quality forage, especially hay. The approach—hay shows; the tool—judging.

Since 1956, we've held five district hay shows annually at strategic locations. These shows stimulate interest in quality hay and will be continued as long as they serve that purpose.

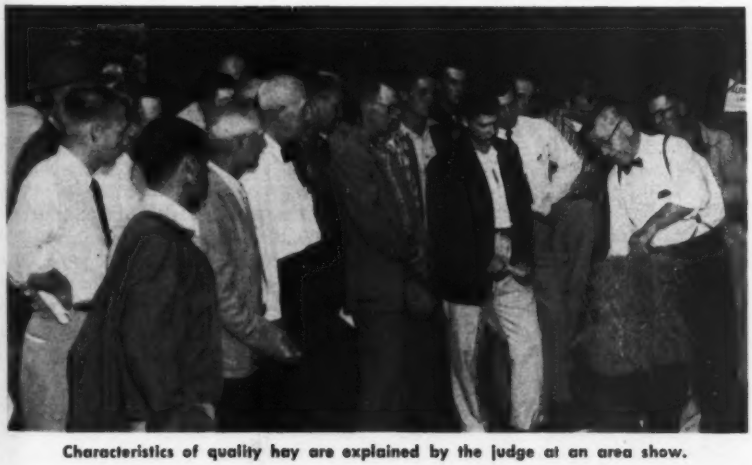
High quality forage in the form of pasture, grass silage, and hay is the least expensive feed for livestock. The cost of producing a ton of fluid milk from good hay and silage is approximately $18, compared to $25-$35 when home-grown or purchased grains are used.

Good grass stands serve also in erosion control and soil improvement. So the dual importance of grass—for feed and for conservation—emphasizes the need for a sound educational program in the establishment, management, and utilization of forage crops.

Recent reports indicate that Pennsylvania farmers harvest approximately 2⅓ million acres of hay annually. If seeded to the right species and varieties and properly fertilized, these acres could produce 1½ to 2 times the amount of feed they are currently yielding.

Another 2½ million acres are devoted exclusively to pasture, either permanent or cropland. The average yield of these acres could be more than doubled with proper fertilization and management.

Quality in forage starts with the land—dense, weedfree, productive stands of modern grasses and legumes. But good stands and high yields are not enough. The crop must be properly harvested, stored, and readily consumed for economical milk and meat production before its true worth is assured.



Characteristics of quality hay are explained by the judge at an area show.

Hay Raising Competition

Many approaches have been used to emphasize the importance of high quality forage and to stimulate dairy and livestock farmers to put modern technology to work. Hay shows are another approach in building better understanding of forage quality.

General rules and regulations for our shows are similiar to those governing most competitive shows. Twelve hay classes have been developed in accordance with the kinds of hay commonly grown. Separate sections handle field-cured and heat-cured hay. To simplify judging, only long hay is eligible for competition.

All shows during the past three years have been judged by a competent hay authority. Total samples entered for the three years were 533, 543, and 552.

Ribbons are awarded to the first place samples in each class. First and second place winners in each class are eligible to exhibit samples at a statewide hay show in conjunction with the Pennsylvania State Farm Show. A new feature in 1958 was a special trophy to the grand champion of each district show.

All samples placing first, second, and third in each class are analyzed

(See New Use, page 170)

A TEAM DEMONSTRATION IN IRRIGATION FARMING

by RUSSELL L. HERPICH, *Extension Irrigation Engineer, Kansas*

A TEAM approach is used in the Kansas Irrigation Development Farm Program. We've found this an effective way to demonstrate the best known engineering, agronomic, economic, and management practices in irrigation farming.

Members of the team are the land grant college, agencies of the U. S. A. Department of Agriculture, Kansas Board of Agriculture, U. S. Bureau of Reclamation, commercial companies, and cooperating farmers.

The foundation for this program was laid in 1949 at a meeting of representatives of interested agricultural agencies and the U. S. Department of Interior. They discussed the best procedure to follow in assisting farmers affected by the newly developing irrigation district projects. These projects, in areas below federally constructed multiple-purpose reservoirs, were forcing farmers to make a rapid transition from dryland to irrigated agriculture.

The objective of the program was to provide leadership in making this transition in the best manner. Soil surveys, water in storage, adapted crop species and varieties, long growing season, managerial abilities of the operators, etc., would be used to accomplish the most efficient production through the development and utilization of all available resources.

Kansas farm family and extension worker discuss their farm irrigation plan.

The agricultural agencies and the USDI contribute technical assistance and cost sharing. Kansas State College departments contribute research data and assist with applying the best known production techniques. Selected farmer cooperators contribute the farm and most of the production costs. And the commercial companies contribute seed, fertilizer, and equipment under varying arrangements.

Dividing Responsibilities

A technical committee composed of representatives from these team agencies is responsible for the program's administration. They delegate the extension irrigation engineer to work with cooperating farmers in carrying it out.

Operating agreements and long-time farm plans are made by the technical committee and the cooperating farmer at the beginning of the program on each farm. These agreements vary from 3 to 5 years, depending on the time needed to attain the general objectives.

Each year a detailed farm plan is drawn up and agreed to by the cooperator and the committee. This plan includes: material contributions of each participant; field arrangement; crop species and varieties for each field; planting date, rate, and method; fertility program—nutrient, amount, rate, date, and method of application; irrigation schedule—approximate date, rate, amount, and method.

Records are kept by each farmer and by the irrigation engineer. These are used to determine the profitableness of the program on the farm and are analyzed yearly.

Effectiveness of the program can be measured in at least three ways. One is the demand from local extension councils for additional irrigation demonstration farms in their area. Another measuring stick is the increasing amount of net profit per acre on each cooperator's farm.

Finally, we have noted the impact upon irrigation development in new project areas. Since 1951, three new irrigation districts have been organized. And in 10 years the irrigated acreage in the State has tripled.

These measuring standards, separately or collectively, indicate conclusively that the team demonstration method is effective. It has helped farmers in the area to make an orderly, profitable change from non-irrigated to irrigated agriculture.

NEW USE

(Continued from page 169)

chemically for crude protein, crude fiber, and moisture. These data are used to estimate digestible protein and to calculate total digestible nutrients.

The shows are usually held during a 1-day indoor educational meeting covering all phases of production, harvesting, storage, and utilization. Time is provided for farmers to study the placings and compare their own estimates with those of the judge.

In 1959, four of the five district shows will move outdoors to research or demonstration farms where field tours will replace the indoor meeting.

The show judge has noted improvement in the quality of hay shown each year. We interpret this to mean there is more early-cut, leafy, green, weed-free hay in dairy barns throughout the State. Farmers also are becoming better judges of quality hay and are more careful in selecting their samples for exhibit.

Programs such as this cannot be handled by Extension alone. Pennsylvania hay shows have been successful only because of the interest and support of many organizations.

As a result of this cooperative effort, many more farmers are quality forage conscious. This contributes both to greater conservation of soil and more economical production of our vital milk and meat products.

Recreation in the Space Age

by J. R. CARDENUTO, *Recreation Specialist, Pennsylvania*

MAN launched into outer space! That's a headline we'll be reading in the not too distant future.

Perhaps the occupant of the space capsule will be in orbit for days, weeks, or even months. Imagine the leisure time our space traveler will have! Will the rest of us ever have that much time?

To the worker of yesteryear, leisure time simply meant rest for a tired body and a weary spirit. Now, with a 5-day week and automation just around the corner, man has more leisure than ever before at his disposal.

Machinery replaces manpower, devices save the homemaker time and effort, improvements in roads and vehicles make us more mobile, new developments in medicine and drugs give us longer life, and a continued prosperous economy provides life's luxuries as well as necessities. Leisure time today is incorporated into the lives of all men instead of a privileged few.

Leisure time offers an opportunity. Used wisely, it can contribute immeasurably to a satisfying life.

The answer to leisure lies in the years ahead, but the responsibility lies in the course that we choose to take today. Joy of creation, fellowship, adventure, desire for new experience, sense of achievement, physical well-being, use of mental powers, emotional experience, enjoyment of beauty, sense of service, and relaxation may all be derived from the proper recreational activity.

One man's work may be another man's pleasure. The decision of which activities he will choose lies with each individual. As adults and leaders, we must have a constructive attitude toward recreation, so that the youth now growing up may be interested in recreational activities which will be useful and beneficial throughout life.

Many consider recreation as ideal for keeping youth busy for the moment. But this is not the whole story. Recreation is one of the important agencies for the development of self-respect, personality, and character. Youth engaging in an activity such as handicraft, reading, art, nature, music, or collecting, learn to be thorough, orderly, and self-reliant. In many cases, ingenuity, initiative, and self-control are developed as in no other activities.

Personal Benefits

For example, at a recent 4-H Junior Olympics Meet, a youngster won three running events. When asked about his accomplishment, he replied, "I ran around my father's horse track every evening to be in shape for the Olympics." Loneliness is unknown to the individual who has mastered the secret of recreational activities that can be done alone.

Probably one of the most important aspects of character development in youth is in social qualities. Many recreational activities, such as camping, parties, and festivals, require participation of more than one person. Such is true of a 4-H project called, When You Step Out. Youth in this project learn etiquette, thoughtfulness, friendliness, and most important, sociability.

If our youth are to assume the leadership of our communities, States, and Nation, they will need character and civic qualities. Loyalty, tolerance, cooperation, and respect for authority are mandatory. Recreation activities such as public speaking, reading, lectures, and drama foster such qualities.

One of our 4-H Clubs decided to conduct a mock trial. As a result of this dramatic activity, the entire club made arrangements to visit a lawyer, sit in on a court trial, and subsequently visit with the judge. This club could not help but admire court procedure and the ultimate path of justice.

Recreation activities should persist informally and unceasingly as long as hobbies and interest can give new meaning to physical, intellectual, aesthetic, inventive, and social arts. Varied recreational activities develop interests which will mean enduring hobbies and which will lead to a richer and fuller life.

Programs for recreation should proceed along three lines. First, provide facilities and full opportunities to those now in need of wholesome recreation. Second, provide wholesome activities which will contribute to the mental, emotional, physical, and social well-being of people of all ages. Third, have a constructive attitude toward recreation, so that the children now growing up may be interested in and provided with the types of recreation that will be useful and beneficial to them as individuals, as members of a family, a club, a community, and of society.

Reading is a valuable recreation activity alone and even more enjoyable when shared.

RECOGNIZING VOLUNTEER LEADERS

by KENNETH L. COOMBS, *State 4-H Club Leader, Rhode Island*

Friends of 4-H receive meritorious service plaques at recognition banquet for leaders.

MY first year in 4-H Club work was a wonderful experience which I shall never forget," says Anthony Judge, Jr. of Cranston, R. I. "Then our leader resigned and the club disbanded. My high aspirations crashed and I was the most disappointed 12-year-old in the State. I made up my mind then and there to do everything in my power to avoid a recurrence of that situation with its disappointments to young people."

Believing local leadership to be the key to success of desirable 4-H Club experience, Mr. Judge, now an assistant bank cashier in Providence, has sought ways of increasing the satisfactions of voluntary leadership.

Among his efforts is the Rhode Island annual 4-H Club leaders recognition banquet, sponsored by his bank. The tenth such occasion was celebrated in 1958 with Dr. E. W. Aiton, Director, 4-H and YMW Programs, FES, as speaker.

Varied Awards

Citations for outstanding service to 4-H were awarded to two donors and to Dr. James P. Adams, chairman of the Board of Trustees of State Colleges. And five local 4-H Club leaders were honored with plaques and citations for outstanding leadership.

Certificates and pins indicating length of service were presented to each leader. Special recognition was given to new leaders and to leaders with 5, 10, 15, or more years of service. A 30-year ruby award of the 4-H clover went to one leader.

Six Friends of 4-H, nominated by the counties for assistance to the 4-H Club program, received plaques for meritorious service. Everyone at the banquet received a paperweight memento.

In addition to all adult 4-H Club leaders of the State, a number of distinguished guests were invited. These included the president of the University of Rhode Island, deans of agriculture and home economics, extension director, presidents of the cooperating Farm Bureaus, members of the Board of Trustees of State Colleges, State director of agriculture and conservation, president of the host bank, and representatives from the American Bankers Association, Federal Reserve Bank of Boston, and the press.

Well-Deserved Praise

This annual event for local leaders definitely is the highlight of the 4-H year. For one evening they are feted and given well-deserved praise for their unstinting contribution to the youth of their communities.

Rhode Island does not claim the national record for tenure of local 4-H leadership. But Extension workers agree with Mr. Judge that the annual recognition banquet provides satisfaction of real significance to local leaders. They need no second invitation. Once they have attended, leaders are reluctant to miss a year.

But Mr. Judge's interest in 4-H is not limited to this phase of the program. He is constantly assisting and promoting 4-H in many ways. For example, a few years ago a businessmen's luncheon club wanted a speaker. Immediately, Mr. Judge thought of 4-H. A call to the county 4-H agent resulted in a program these men still remember. An enthusiastic 4-H girl gave a lecture-demonstration on soil and water conservation. The businessmen learned a lesson in conservation, and learned about 4-H. Now at least once a year another 4-H member is invited to speak.

Personal Recognition

When the National 4-H Alumni recognition program was launched 7 years ago, Anthony Judge was nominated by Rhode Island and selected as one of the eight national winners. He has served on many county and State Extension committees and for two years was chairman of the State 4-H Advisory Council.

While he served as chairman of the agricultural committee of the State bankers association, the committee provided achievement pins for 4-H Club members. Later the committee furnished gate signs, "A 4-H Club Member Lives Here."

In a radio interview during National 4-H Club Week this year, Mr. Judge stated that 4-H ideals were so firmly implanted during his one year of active membership that he has continued to practice them in everyday life. To paraphrase an old idiom, "You can take the boy out of 4-H, but you can't take 4-H out of the boy."

Camping Develops the Heart "H"

by HARLEY V. CUTLIP, *Assistant State 4-H Club Leader, West Virginia*

THE open sesame to boys' and girls' hearts is never so good as when living close to nature. To those who love to see a young life unfold, the 'water' is never finer than when you go camping."

That's how State Club Leader W. H. Kendrick expressed his awareness of the value of the first 4-H Camp in West Virginia, held in Randolph County in 1915. Camping has come a long way in the 44 years since then. Today it is taken for granted as part of the summer activities in every county 4-H program. In 1958, 9,734 West Virginia 4-H'ers had a 5-day camping experience.

Why do we put so much time and effort into making it possible for club members to have a camping experience? Why did 1,350 local volunteer leaders give a week of their time to assist with 68 West Virginia county 4-H camps in 1958? Perhaps there are two answers: a genuine interest in the fourfold development of every individual member, and a belief that camp is one of the best places for youth training in the fundamentals of leadership and citizenship.

Actually, it is impossible to define or give the philosophy of 4-H camping without mentioning the individual development of the club member. Try as you may, it can't be done!

Camping promotes total growth—physical, intellectual, moral, and spiritual. It is vitally concerned with helping boys and girls develop a set of values—values in right thinking, right doing, and right living. So spiritual emphasis is not a thing to be set apart but rather an integral and important part of everything that happens to the campers.

Yes, a 4-H camp provides an ideal climate for heart "H" development. It's a climate that includes opportunities to learn and to practice honesty, fairness, understanding, cooperation, responsibility, healthful living, tolerance, wholesome use of leisure time, and loyalty to God, others, and to the finest in one's self.

Teaching the skills of camping, athletics, and cultural activities is important, but the overall objective of camping goes much further than development of skills. We are dealing with youth at their most impressionable and formative stages. It is our job to recognize the wonderful opportunities we have to guide these boys and girls toward wholesome, happy lives.

Learning Cooperation

Camping may be a 4-H'er's first experience entirely away from the family. At camp he learns everyone must do his share. He learns his responsibility to the group. He learns he must get along with everyone, if he is to enjoy himself. He learns he must rely on others for help and not on just his family.

Living together, sharing experiences, respecting each other's opinion, accepting each other's shortcomings and qualities are all part of camping. The ideal is to give campers an approach to life which is individual and creative, yet also cooperative; to make people independent and self-reliant, yet harmonious and disciplined.

Although heart "H" development is integrated into the total camp program, there is also a place for the organized services of worship—formal or informal. Evening inspirational programs have always been a part of the daily program in West Virginia 4-H camps. They are an important part, too, as evidenced by the "memories that linger" in the minds and lives of former 4-H club members as they relive their camping experiences.

Campers of all faiths are encouraged to attend and live in a spirit of broad-minded tolerance, appreciate each other and the right of each to worship as he chooses. Our aim is the furthering of spiritual growth through the development of a greater appreciation of the higher values of life.

Grace before meals, cabin devotions, morning thoughts given at breakfast, and bits of inspiration and challenge around the evening campfire—all add to the spiritual emphasis in our 4-H camping program.

Truly, the opportunities are unlimited for giving emphasis to heart "H" development in a 4-H camp. Such opportunities permeate all camp activities, providing an ideal climate for growing better boys and girls.

Opportunities for fellowship and informal sharing of experiences contribute to heart "H" development.

THREE POINT LANDING

(Continued from page 163)

Another method of determining progress is with comparative groups. I found it possible to divide our participants into active extension participants and non-active extension participants, as judged at the date of their starting in the program.

County Agent Burbank, standing, and farmer analyze results of fertilizer trials on alfalfa.

Ratings by participants on eight farm management practices showed marked improvement. At the start of the program, strong and weak points were nearly equal. The ratio was 2 to 1 in favor of strong points at the time of the study.

The study showed that participants learned to keep and use records, especially as an aid in studying their business. Records showed that farm women alone kept records on one-third of the farms and worked on records jointly with their husbands on another third. This led to the conclusion that farm women need training in bookkeeping.

Analysis of records showed that some, but not all farmers, increased their labor incomes. Some families made changes in their businesses to improve family convenience or living. Goals to improve family living and to increase labor income were common and it is expected that over a longer period of years, these will be achieved.

Numerous families benefited by writing sound farm business agreements, either partnerships or father to son transfers. Farm families have looked at their businesses from the whole family outlook and considered family goals. Participants have taken increased interest and leadership in community activities.

The area approach to enrolling participants involves some families which would not otherwise participate in extension activities. Progress with this group is often greater than with regular participants.

The study also shows that farm and home visits and small group meetings are both effective methods, but visits are more effective.

Through Farm and Home Management programs, the family gains more confidence in the county agent and he can be more helpful. This program helps to coordinate the activities of agents and brings them closer together. This has a beneficial result for the farm family.

A steering committee plays an important part in program development, progress, and guidance. In the opinion of the planning and administrating committee, Farm and Home Management should be a regular part of extension work. Each participant should continue with it for a varying length of time, depending upon progress made.

In Dutchess County, the Farm and Home Management program is firmly established in both the agricultural and home departments. Its influence is reflected throughout all programs.

Leon White, chairman of the steering committee for four years, became expert at bookkeeping and analyses.

According to memorandums of agreement, the three agricultural agents devote 60, 15, and 10 percent respectively of their time to this program. Two home agents devote 10 and 60 percent of their time to work with farm wives.

A favorable press has helped to improve public awareness of the importance of this program. The program evaluation helped to crystallize opinions and bring about some of these more favorable situations.

COMMUNITY COOKING

(Continued from page 165)

and set up committees for the practice meal which will be their "final exam." For this event, each person invites several luncheon guests.

Later, when everything has been cleaned up and the accounts balanced, the class winds up the session with an evaluation.

The result? Approximately 850 women representing an untold number of organizations were trained in community meal service in a single year.

Training Film

The program is given added impetus by the film, Managing a Community Meal, made in connection with a training session. It shows how 18 women divide responsibilities for a meal between three committees—kitchen, dining room, and cleanup, with each responsible to the general chairman. Used at the start of a training school, the 23-minute color film serves as a preview of what is to come.

Since its release in September 1958, the film has been shown to an audience of 10,035 in 35 New York counties. It also has been used on television, at meetings of dairy groups, and on Farm and Home Week programs at the University of Wisconsin and Cornell.

Today in New York State, community meals are big business. It is not unusual for a group to net $600 for a single supper. Civic organizations raise an estimated $1 million a year from community meals in the State. This is good enough reason for this educational program with emphasis on sanitation, safety, nutrition, and economy.

NEWS and VIEWS

Home and Club Agents Schedule Fall Meetings

Home demonstration agents with outstanding service will be honored at a recognition brunch during the National Home Demonstration Agents Association annual meeting. This 25th annual event will be held October 21-24 in New Orleans, La.

Scheduled speakers include C. M. Ferguson, Administrator, Federal Extension Service; H. C. Sanders, Louisiana Director of Extension; Owen Cooper, Mississippi Chemical Co.; and Wesley Wiksell, Professor of Speech, Louisiana State University. A fashion show, tour of New Orleans harbor, and other educational features are planned. President Velma Johnson and President-Elect Irby Barrett will preside at business sessions.

Chicago will be the site for the annual convention of the National County Club Agents Association. It will be held November 30 through December 1 during National 4-H Club Congress. Peter F. Martens, New Brunswick, N. J., is president.

Book Reviews

EVALUATION IN EXTENSION. Published by H. M. Ives and Sons, 420 Quincy St., Topeka, Kans.

One of Extension's more popular how-to-do-it publications has been completely revised and we think greatly improved. It tells what evaluation is, how it's done, and its use. If you are interested in evaluating your work or part of it, you will find the publication useful.

The content is very readable. Much attention has been given to sentence and paragraph length. Technical words have been reduced to a minimum. When they are used, they are explained.

The authors kept extension agents who are unfamiliar with evaluation in mind when they prepared the chapters. Chapter manuscripts were pretested in extension summer school courses in evaluation and rewritten.

Copies may be obtained from the publisher. Federal Extension Service will not stock copies.—*F. P. Frutchey, Federal Extension Service.*

PROFITABLE POULTRY PRODUCTION by E. D. Parnell. Published by John Wiley and Sons, New York City. 393 pp. Illus.

This comprehensive text is a practical guide to the many problems in poultry science today. It deals with science in simplified terms along with the art of poultry raising. This book emphasizes the steps necessary to success. The information contained in its well illustrated pages can be utilized by students, teachers, county extension workers, and poultry farmers.

In addition to the 12 principal chapters there is another which discusses "a look ahead." This gives a progressive look to the poultry industry and sketches the numerous possibilities that are being developed.

A 10-page appendix gives many useful tables and bits of information for the guidance and help of the poultryman.—*H. L. Shrader, Federal Extension Service.*

Ways of adjusting programs to meet changing needs of rural people were discussed by Negro extension supervisors from 14 States at Dublin, Ga. regional workshop. Committee chairmen and consultants were (left to right): Mrs. Minnie M. Brown, N. C.; Ashford O. Williams, La.; R. A. Sanders, Tex.; A. S. Bacon, Ga. (now with Federal Extension Service); Mrs. Ezelle M. Hawkins, Md.; Dr. Grady W. Taylor, Ala.; and S. E. Marshall, Va.

Monthly Revisions in Publications Inventory

The following new titles should be added to the Annual Inventory List of USDA Popular Publications. Bulletins that have been replaced should be discarded. **Bulk supplies of publications may be obtained under the procedure set up by your publication distribution officer.**

F 1855	Culture, Diseases and Pests of the Box Tree—*Slight Revision 1959*
F 2131	Raising Rabbits—*New*
F 2134	Culture of Oats in the Western States—*New*
F 2135	What Young Farm Families Should Know About Credit—*New*
F 2136	Lightning Protection for the Farm—*New*
G 17	Food Guide for Older Folks—*Revised 1959*
G 62	Removing Stains from Fabrics—Home Method—*New*
L 221	The Home Fruit Garden in the Central Southwestern States—*Slight Revision 1959*
L 447	Hyperkeratosis of Cattle—*New*
L 450	Horse Bots—How to Control Them—*New*

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OFFICIAL BUSINESS

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What causes summer rain? Effect of cold front is explained to 4-H'ers by Lee County Extension Director R. N. Dowling.

Introducing Science to Youth

by DWAYNE A. ROHWEDER, *Extension Agronomist, Iowa*

In two Iowa counties, 10-year-old 4-H boys talk about radiant energy from the sun. And they use such terms as cirrus, stratus, cumulus, and cumulonimbus.

In the future, more Iowa boys from the farm and urban areas will be using these terms and others like them. And they will know what they're talking about. Back of all this is a new 4-H project on climatology.

Extension agronomists in Iowa have been incorporating the basic fundamentals of agronomy into their teachings. In addition, extension workers in Lee and Clinton Counties have been looking for projects to meet the needs of both rural and urban 4-H members. The 4-H project dealing with climatology was developed to meet these needs.

Climatology, a study of the weather, climate, and their phenomena, is part of the field of agronomy at Iowa State. The 4-H project aims to show factors which make the weather, how weather develops, and how it reaches Iowa.

The basic principles of physics related to weather are taught to 4-H members at several club meetings throughout the year. At present, the project is divided into two parts. The first year is primarily a study of how precipitation is formed. The second year deals with heat and how the earth and its atmosphere are warmed.

A strong point of the project is a section dealing with how the weather affects the activities of people both at work and at play. Yes, the weather even affects where and when you might catch that fish.

This project was taken to Clinton County by agronomy staff members. They trained county staff members and 4-H leaders in the basic principles of the weather. Then the leaders took the information to their individual clubs. Teaching aids and demonstration materials were provided for use in club meetings.

With proper leader training and good visual aids, 4-H leaders can effectively teach this type of material to 4-H members. A discussion guide has been prepared to help leaders teach the basic subject matter of weather.

The 4-H members fulfill the usual requirements for 4-H project work. They give an individual demonstration or participate in a team demonstration on some phase of the weather study. They also assist in preparing an exhibit on their study of the weather, make and properly locate a rain gauge, keep daily and seasonal precipitation records, and make other observations on the weather. Each 4-H member then writes a story on what he has learned from his study of the weather.

Idea Spreading

From this start, the project has spread to 10 Iowa counties. All are counties served by area extension agronomists. These staff members will be able to obtain further information and ideas on how the project may be taught most effectively to 4-H members.

Yes, this will continue as a regular 4-H project in Iowa. And additional projects that teach the basic sciences will follow.

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